

direction.

25. (New) A connection strip in accordance with claim 12, wherein:

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said insulation-piercing terminal contact elements are arranged on a first side of said housing and extend toward a middle of said housing;

5 said base rail is arranged on a second side of said housing substantially diametrically opposite said first side of said housing;

said shielding plates extend from said base rail toward said middle of said housing.

REMARKS

The claims have been amended to place this application in better form.

Claims 7 - 22 have been rejected over Applicant's admitted prior art specifically U.S. 5,160,273. The rejection states that Applicant's admitted prior art substantially discloses the claimed invention except the shielding plates being integrally formed with the base rail. The rejection further states that it would have been obvious to make the shielding plates integral with the base rail for minimizing the steps of assembly since it has been held that forming in one piece an article which has formally been formed in two pieces and put together involves only routine skill in the art. The court decision of *Howard v. Detroit Stove Works*, 150 U.S. 169 (1893) has been cited.

Applicant has reviewed U.S. Patent 5,160,273, and the cited court decision. Applicant notes that it would be impossible to take the structure of '273 and form it from a single metal

sheet as set forth in claim 7. Applicant notes that '273 describes a strip 48 with the shield contact elements 68 split centrally with slots 100, as shown in Figure 10. The slots 100 are set forth as accommodating edges of shield plates 44. As the Examiner can see from Figure 10, if elements 44 are inserted into slots 10, the combination of elements 48 and 44 cannot integrally be formed from a single sheet. A sheet is 2-dimensional, and the structure described by '273 is clearly three dimensional, and cannot be formed from a two dimensional sheet. Therefore the court decision does not apply in this rejection.

Applicant notes that the court decision indicates that no inventive step is present when only routine skills are used to form in one piece an article which is formally been formed in two pieces and put together. The present application differs from the court decision, because the present application deals with the further limitation of a sheet which is a 2-dimensional object, and forming the structure of '273 from a sheet is for all practical purposes impossible, and therefore does not involve only routine skill in the art.

It is only the present invention which has disclosed structure where shielding plates can be connected to a base rail by a web, where all of the shielding plates, the webs and the base rail can be formed from a metal sheet. Applicant notes that the insertion of elements 44 into slots 100 of Figure 10 of '273 would create a structure that cannot be bent or twisted from a metal sheet. It is not possible to start with a metal sheet and bend it into a structure which would be similar to Figure 10 of '273 where elements 44 were inserted into slots 100.

The present invention is therefore claiming a structure which is different from any structure in '273. Since it is impossible to form the structure '273 from a metal sheet, the

structure of '273, must be therefore different from the structure of the present invention. Applicant notes that a 2-dimensional metal sheet would not have enough material to form the structure of '273, especially element 48 with elements 44 inserted into slots 10. As the Examiner can appreciate, a 2-dimensional metal sheet could not provide the structure of element 44 in slot 100. This geometric impossibility indicates that the structure of the present invention must be different from the structure of '273. Since the structure of '273 is different than the structure of the present invention, and it would be impossible, much less obvious, to modify '273 towards the present invention, the present invention must therefore define over '273. In particular claims 7, 9, 12 and 22 set forth the base rail, the webs and the shielding plates being formed from a single homogeneous/integral sheet of metal. These claims therefore specifically set forth structure which is not present in '273, and therefore cannot be anticipated or obvious in view of '273.

Claim 9 is a process claim that sets forth the step of rotating the shielding plates in the region of the webs through approximately 90° with respect to the base rail. Applicant has reviewed '273, and finds no teaching nor suggestion of rotating shielding plates in a region of a web through approximately 90° with respect to a base rail. Applicant notes that elements 44 in '273 are completely separate from element 48, and claim 9 sets forth that the rotating is performed subsequently to the step of forming the shielding plates integrally from the metal sheet. Therefore even if the structure of the present invention were at the same as '273, the method of forming the present invention is not taught nor suggested in '273. Applicant notes that similar structures can be formed by two patentably distinct methods, and therefore the mere

fact that the structure of the present invention may have some similarity with the structure of the prior art, does not automatically indicate that the method made to create the structure of the present invention is obvious in view of the structure of the prior art. Instead the method steps of a process claim must be shown to be present in the prior art regardless of whether or not the structure is already known. Claim 9 therefore further defines over the prior art.

Claim 18 has been amended to further set forth the relationship between the base rail, the webs and the shielding plates. In particular claim 18 sets forth how all of these elements are positioned with respect to the other elements. In particular the base rail is set forth as having a longitudinal direction in the base rail plane. In the embodiment of Figure 2, the longitudinal direction would be from the left to the right. Claim 18 has also been amended to set forth that the webs extend from the base rail in a transverse direction. The transverse direction is set forth as being in the base rail plane, and substantially perpendicular to the longitudinal direction. In the embodiment of Figure 2, the transverse direction is from bottom to top, or vertical. As one can see from Figure 2, the webs extend from the base rail in this transverse direction. Claim 18 also sets forth that the webs are a sheet type material with a substantially 90° twist about said transverse axis. This twist is easily seen in Figure 2.

Applicant has reviewed '273, and finds no teaching nor suggestion of a web extending from a base rail in a transverse direction, especially where that transverse direction is in a plane of a base rail and substantially perpendicular to a longitudinal direction of a base rail. This is especially true where that web has a substantially 90° twist about the transverse direction. From Figure 10 of '273. Applicant notes that elements 68 in Figure 10 are not bent or twisted

around a transverse direction. Therefore element 68 of Figure 10 cannot anticipate the webs of claim 18. Therefore claim 18 sets forth structure which is not present in approximately '273.

It is Applicant's position that the particular orientation of the web in claim 18, especially with regard to the twist about the transverse direction, would not be obvious in view of Carney. Carney clearly teaches a completely different orientation of elements 68, and Applicant would find no incentive to modify element 68 to have the orientation of claim 18. Furthermore, Applicant notes that if '278 were modified to have the twist of claim 18, the device of '273 would not operate properly. According to U.S. patent regulations, such a modification cannot cause a claim to be obvious. Claim 18 therefore further cannot be considered obvious in view of '273. New claim 24 depends from claim 9 and also sets forth the orientation of the webs as set forth in claim 18. In particular claim 24 sets forth that the rotating of the shielding plates is performed about a transverse direction. That transverse direction is set forth as being in the sheet plane and substantially perpendicular to the longitudinal direction. Applicant finds no teaching nor suggestion of this rotating step in '273, and therefore claim 24 also defines over '273.

Claim 23 further sets forth that the planes of the shielding plates include the transverse direction. From Figure 2 of the present application, the transverse direction is in the vertical direction, and the shielding plates 2 are in the vertical direction. Therefore the shielding plates include the transverse direction. Applicant finds no teaching nor suggestion of this orientation of the shielding plates in '273. Applicant notes that in Figure 10 of '273, elements 44 inserted into slot 100 would not include a transverse direction of a base rail. Therefore '273 does not

anticipate this feature, and claim 23 further defines over '273.

New claim 25 depends from claim 12 and sets forth how the insulation-piercing terminal contact elements are arranged in a housing with respect to the base rail. In particular claim 25 sets forth that the insulation piercing terminal contact elements are arranged on a first side of the housing and extend toward a middle of the housing. In the embodiment of Figure 6, the insulation piercing terminal contact elements are represented by reference 10, and are in the top side of the housing 12. The insulation piercing terminal contact elements 10 extend downwards towards the middle of the housing 12, as is shown in the embodiment of Figure 7.

Claim 25 also sets forth that the base rail is arranged on a second side of the housing which is set forth as being substantially diametrically opposite the first side of the housing. In the embodiment of Figure 6, this second side of the housing is the bottom side of the housing and the base rail is shown in phantom by reference 3. The shielding plates are set forth in claim 25 as extended from the base rail towards the middle of the housing. This can be seen also in the embodiment of Figure 6 by reference 2.

Applicant has reviewed '273, and notes that element 48 is arranged on the same side of element 42 as wire connection slots 94. Therefore '273 does not teach nor suggest the relationship of insulation piercing terminal contact elements and a base rail as set forth in claim 25. Claim 25 therefore further defines over '273.

Claims 7, 9, 11, 18 and 20 are rejected as being anticipated by Itoga. The rejection equates the shielding plates of these claims with elements 14 and 16, and the webs of these claims with elements 18 and 20. The rejection states that the webs of Itoga are narrower than

the shielding plates. Applicant has reviewed Itoga, and finds no indications that elements 18, 20 are narrower than elements 14, 16. If anything, it appears that Itoga has elements 14, 16 to be the same width as elements 18, 20. Applicant notes that if the width was measured from right to left in the figures of Itoga, elements 18 and 20 would actually have a larger width than elements 14 and 16. Therefore it is Applicant's position that the statements supporting this rejection are untenable, and that the claims also define over Itoga.

The present invention is an improvement over the prior art, especially '273, because the structure of the present invention is easier to form, and simpler to assemble. As described in the background section of the present application, '273 requires many separate pieces which all must be separately assembled. Also as one can see from Figure 10 of '273, the structure of Figure 10 is very complicate and requires many machining operations. Therefore the structure of the present invention is much easier to create, since it can be stamped from a single sheet of metal, and then bent into the proper orientation. The present invention is also much easier to assemble into a terminal block, since it is one piece, and many separate pieces do not need to be individually assembled. The present invention is therefore an improvement over the prior art, and Applicant respectfully requests patent protection for this improvement.

If the Examiner has any comments or suggestions which would further favorable prosecution of this application, the Examiner is invited to contact Applicant's representative by telephone to discuss possible changes.

At this time Applicant respectfully requests reconsideration of this application, and based on the above amendments and remarks, respectfully solicits allowance of this application.

Respectfully submitted
for Applicant,

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Enclosed: Marked-Up Version of the Claims

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SHOULD ANY OTHER FEE BE REQUIRED, THE PATENT AND TRADEMARK OFFICE IS HEREBY REQUESTED TO CHARGE SUCH FEE TO OUR DEPOSIT ACCOUNT 13-0410.

MARKED-UP VERSION OF THE CLAIMS

18. (~~New~~Amended) A shielding device for electrical connectors, the shielding device comprising:

a base rail arranged in a base rail plane, said base rail having a longitudinal direction in said base rail plane;

a plurality of webs extending from said base rail in a transverse direction, said transverse direction being substantially perpendicular to said longitudinal direction and being in said base rail plane, said webs include a sheet type material with a substantially 90 degree twist about said transverse direction;

a plurality of shielding plates extending from said webs, each of said shielding plates being arranged in a plane substantially perpendicular to said base rail plane, said shielding plates having a width wider than a width of said webs.